

Allowance of Application #10/826,453

1. The following communication is in response to applicant's RCE and amendment received 18-March-2010. Claims 1, 6-14, 17 and 18 are pending in the application. Claims 2-5, 15, and 16 are canceled. Further, the specific arguments as presented in applicant's present response are considered persuasive.

Reasons for Allowance

2. The following is an Examiner's Statement of Reasons for the indication of allowable subject matter.

2.1 Claims 1, 6-14, 17 and 18 are considered allowable, since when reading the claims in light of the specification, as per MPEP § 2111.01, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in independent claims nos. 1 and 6, specifically:

In regard to claim 1, based on impact of the first set of transformations on a predictive power of the predictor attributes, enabling the user to determine whether to apply a second set of transformations to the predictor attributes to alter the impact on the predictive power [defined at p. 29, ln. 20 through p. 30, ln. 5], and automatically ranking performance of the predictor attributes as transformed by at least one of the first set and second set of transformations [p. 21, lns. 17-30].

Furthermore, claim 6 defines a project in which a user generates a final predictive model based on a series of predictive models, the final predictive model being associated with a customer relationship system [p. 21, lns. 11-21], for the final predictive model, automatically grouping customers into segments based on identified distinguishing characteristics of the

customers in the customer relationship system [p. 21, Ins. 11-21], generating predictor variables for each segment, enabling the user to apply transformations to the predictor variables until significant interactions among the generated predictor variables are taken into account, each transformed predictor variable being associated with at least one of the series of predictive models [p. 21, ln. 21 through p. 22, ln. 6], generating the final predictive model based on at least some of the predictive models of the series that are associated with one or more of the transformed predictor variables [p. 22, Ins. 7-14], and using the final predictive model for marketing communications to be made to customers who are subject to the customer relationship system being modeled [p. 21, Ins. 11-15].

Dependent claims 7-14, 17, and 18 are deemed allowable as depending either directly or indirectly from independent claims 1 and 6.

2.2 The instant application is directed to a non-obvious improvement over the information described in the following documents:

The article entitled *"Evolutionary Algorithms in Data Mining: Multi-Objective Performance Modeling for Direct Marketing"*, authored by Bhattacharyya, which discloses the use of evolutionary computation based procedures for obtaining a set of non-dominated models with respect to multiple stated objectives.

The article entitled *"Overview of Data Mining for Customer Behavior Modeling"*, authored by Bounsaythip et al., which discloses the problems of customer relationship management, particularly customer segmentation and customer profiling, and how data mining tools are used to support the decision making.

The article entitled "*Smart Data Use Can Improve Bank Insurance Marketing*", authored by Pinto, which discloses seven of the steps that represent the best practices in exploiting customer data for profitable growth.

None of the references cited above provide the claimed limitations of the present invention, specifically the limitations detailed above in section 2.1.

2.3 The art of record, either individually or in combination, fails to teach, suggest, or render obvious the specific arrangement of elements in the same combination as now required by the amended claims. In view of the foregoing, the claims of the present application are found to be patentable over the prior art.

2.4 Process claims 1, 6-14, 17 and 18 were also analyzed under 35 USC 101. It is recognized that, in order to be statutory, a process claim must be, either explicitly or inherently: 1) tied to a particular machine or apparatus, or 2) transform a particular article into a different state or thing. *In re Bilski*, 88 USPQ2d 1385 (2008). It is also recognized that a general purpose computer may be converted into a particular computer through the operation of software on the computer. *In re Alappat*, 31 USPQ2d 1545 (1994).

For the instant invention, the specification makes clear that the claimed customer relationship models are carried out via software operating on a microprocessor [at least at p. 6, lns. 8-24]. As such, the process is tied to a particular machine, thus meeting the *Bilski* test.

Response Guidelines

3. Any comments considered necessary by applicant **MUST** be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the

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Issue Fee. Such submissions should clearly be labeled "Comments on Statement of Reasons for Allowance".

3.1 Any response to the Examiner in regard to this allowance should be

directed to: Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, or the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279. Inquires of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist (571) 272-2100.

mailed to: Commissioner of Patents and Trademarks
P.O. Box 1450, Alexandria, VA 22313-1450

or faxed to: (571) 273-8300

Hand-delivered responses should be brought to the Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

/Russell Frejd/
Primary Examiner AU 2128